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AMERICAN VETERINARY REVIEW,

JANUARY, 1882.

ORIGINAL ARTICLES.

THE HORSE'S FOOT.

BY A. ZUNDEL.

(Continued from page 386.)

VII. *Treatment.*—Prophylaxy ought to be the principal treatment of cracks. It is not always easy, however, to prevent them, and it becomes important, therefore, to treat them as soon as they appear. One ought at least to try to prevent them from becoming complete and deep. This form of treatment may be called the hygienic, as it is not properly curative, and so long as the crack is not yet completely formed, by this means the animal may be kept at work as if everything was normal. Curative treatment is that which is applied to the deep or complete disease, more or less complicated, and it most commonly consists in removing that portion of the wall which bruises and irritates the tissues beneath, and in equalizing the wound. In general, there is no necessity for haste in operating, the hygienic treatment being often sufficient to obviate the need of serious operations. The distinction between the hygienic and curative treatment is not however, always definitely marked, and quite often the two modes of treatment must be combined, both the hygienic and curative being necessary.

The *prophylactic* treatment consists specially in the application of tonics, with the object of preventing the hoof from drying. Its normal hygroscopic condition must be preserved, and it

must be prevented from taking up too much of the dampness of the ground upon which it travels, as well as from losing that which keeps up its flexibility. At times it must be rendered more moist and, according to the requirements of the case, recourse must be had to hoof ointments and other greasy substances, glycerine, and astringent poultices. At the same time the shoeing must be carefully attended to; the shoe must not be too heavy nor too wide, and should be secured by nails of a proper size.

The *hygienic* treatment has for its first and principal indications to prevent the solution of continuity from increasing, from extending through healthy structure, and especially to new hoof, as this is secreted by the coronary band. The borders of the cracks must, therefore, be prevented from separating in the movements of dilatation of the foot. The normal suture of the wall not being produced by the natural process, or at least, producing it only in keraphyllocele, which is likely to be as injurious as the crack itself, the borders of the crack must be brought together artificially.

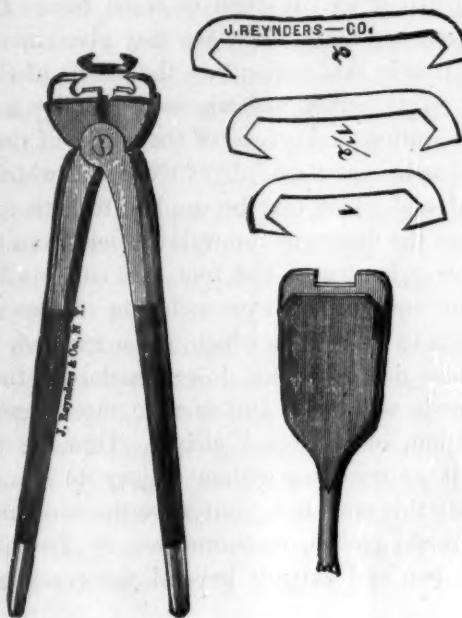
It has been supposed that this could be done with the putty of Defay's, a mixture of gutta percha (2 parts) and gum ammoniac (1 part), introduced into the well-cleaned fissure in a solution, and pushed in as deeply as possible by a warm iron plate or a spatula. This putty is excellent for superficial cracks, but is insufficient to bring the borders together when the fissure is somewhat deep, or especially if it is irregular and sinuous.

A better way, at least for toe crack, is that which consists in suturing the edges of the solution of continuity by metallic clasps, which immobilize the hoof. This mode is always preferable to circular ligatures of wire or cord, which have the effect of interfering with the natural elasticity of the hoof. Clasps only fix the hoof locally, and are an old means of treatment, having been used by Solleysel and Garsault.

It was advised to perforate the horn through and through, with a small punch, and pass a wire, which was bent over the crack, or twisted together at the ends. The same authority recommends the driving of a nail through both edges, and securing it tightly, as in the application of the nails of the shoe. This treatment was

recently recommended by Haupt, Lafosse and Rey. The first of these professors takes an ordinary nail, with a small head, drives it through one edge of the crack, so as to come through the other at an equal distance from the point of entrance; the nail being thus driven to the head the borders of the crack are then brought together, and the nail secured in the ordinary way. Two or three of these clasps are employed, according to the extent of the crack. Lafosse makes a groove on each side of the fissure, about one centimeter from the border, in a direction transverse to that of the fibres of the wall, which limits the passage of the nail. The nail is then introduced and secured as in the first instance. Rey makes a track for the nail first, by drilling a hole through the borders of the crack. The animal must be cast during these operations.

The best kind of clasps or hooks are undoubtedly those of Vachette, which require special instruments for their application, but give a real solidity to the means of fixing the position of the parts. The clasps are all prepared, made of strong wire, bent at



both extremities, and slightly sharp inwardly. (fig. *a.*) These are secured on the foot by a special nipper or forceps, (fig. *c.*) in the notches made on the wall with a special cautery (fig. *b.*); this cautery has its extremities flattened, the width of the clasp apart from each other. The forceps used to secure these is strong; its branches are flattened from side to side, and grooved inwards, and sufficiently apart from each other, while it is open, to receive the clasps between its border; these branches, with the clasp, are exactly fitted to the notches made in the wall with the cautery. It is sufficient to press the branches of the forceps, to close the teeth or extremities of the clasps, and bring firmly together the borders of the cracks. The number of clasps varies according to the case under treatment.

A very simple mode of effecting reunion of the borders of the crack is that of Hartmann. It consists in applying upon the wall a sheet of iron, adapted to its outside, and secured on the foot by two small screws.

Clasps are of a certain utility for toe cracks, but they often fail in quarter cracks, on account of the thin condition of the wall, which is particularly well marked in some feet. If the living tissues are encroached upon, the clasp may give rise to complications, and still it is in that region that the effects of the motion of the hoof must be prevented, and where immobility is essential, to prevent the separation and spread of the edges of the crack.

Castanet has indicated a mode of treatment which has proved very successful, and which may be applied to both toe and quarter crack, where the fissure of the wall extends from the coronary band to the lower border of the foot. It consists in making a groove at about one centimeter on each side of the crack, which in depth extends to its bottom, which, when reached, is white. If the solution does not go to the lower border of the foot, these grooves are made obliquely, and so as to meet together at their lower termination, and form a V shape. Thus the crack cannot increase, and it grows down without injury to the soft tissues. Castanet, after this operation, cauterizes the coronary band.

The transversal groove, recommended by Levrat, which cuts the tissues in two and extends beyond the crack on each side

about three centimeters, which goes down to the soft tissues of the foot, and not beyond them, has for its object to diminish the effects of percussion produced by the contact of the foot with the ground. It however, does not prevent the edges of the fissure from separating, as the groove of Castanet does. It is chiefly useful when there is separation of the wall, or false quarter. At times a transverse groove has been made to prevent an incomplete fissure, starting from the plantar border from spreading to the coronary band. According to Hartmann, a single hole drilled through the wall is, in these cases, sufficient.

Shoeing is of much assistance in the hygienic treatment of cracks. In toe cracks, the toe should be spared as much as possible while the heels are lowered by paring, or by the application of a shoe thicker at the toe, or by the removal of the calks at the heels. While Defays holds that the shoe ought to lie close and tight to the plantar regions of the crack, Hartmann, on the contrary, advises the paring of that surface at the toe, so that the shoe cannot rest on the crack, and recommends the application of two clips on each side of the toe.

In quarter cracks, it is recommended to lower the toe, to save the bars and the frog; and when the crack is incomplete, and not accompanied with lameness, Defays recommends not to lower the diseased quarter, and to have the heels resting well on that branch of the shoe, which shall be thick and straight. Schrebe advises a calk on that side. If the crack is deep, with excessive lameness, and deep lesions, the quarters and heels must be pared down as much as possible, and a bar to be then put on, resting on the frog, if need be. An ordinary shoe with a thick branch may be sometimes employed.

As part of the hygienic treatment, we may consider the means recommended to increase the secretion at the coronary band. It is known that a slight irritation at that part of the foot is accompanied with an increased secretion of hoof, which is sometimes sufficient to give rise to a new growth of healthy horn. One of the most common methods is to slightly cauterize the coronary band with the iron. This was already known by old practitioners, who employed an S cauter; but they committed

the error of burning the hoof too deeply, instead of simply cauterizing the coronary band. Solleysel speaks of the cauterization of the band. Garsault mentions only the burning with three Ss across the crack. Such cauterization could have no useful effect, and the deep application of the cautery might be followed by serious complications. For these reasons Lafosse objected to them. In our days it is abandoned, and the coronary band only is touched by the cautery; Castandet and Rey also employ it. Chemical cauteries have also been recommended, nitric acid by Laguerriniere, and more recently by Lafosse.

Putty of corrosive sublimate and ointment of oxide of mercury are also in use, but have no marked advantages. Blisters prove very beneficial, and also turpentine, as recommended by Lafosse and Rey, and the oil of Gade by Maury. Defays advises the putty of gutta percha, which is also used to conceal the clasps.

The curative treatment is necessary whenever any complication attends the crack. If it is recent, antiphlogistics and rest should be first tried; cold bathing, blisters combined with hygienic treatment may then be sufficient. A single groove at the upper part of the crack, near the coronary band, is often sufficient, or the removal of a V shaped portion of hoof, extending more or less deeply according to the condition of the crack, care being observed to avoid the growth of vascular granulations between the edges of the crack. There are cases where it is not necessary to remove the segments of the hoof entirely down to the soft tissues, but only to thin them down and to apply over it a dressing of oakum, secured by several turns of roller bandages. In all cases a bar shoe must be applied to relieve the pressure on the quarter where the crack exists. This is principally recommended by Prevost, Girard and others.

If there are deep lesions of the sub-hornly tissues, a piece of the wall must be removed, and the operation for radical cure be performed. It is an old operation, by which all diseased tissues are exposed. As little of hoof as possible is removed. In operating, two grooves will be made alongside and at some distance of the solution of continuity. The wall between is removed so as to expose

the podophyllous tissues from the coronary band down to the sole, care being taken to avoid the tearing of the structure of the coronary band, and the diseased tissues are then removed. If the podophyllous tissue, it is excised with the sage knife; if the bone is carious, it is scraped with the drawing knife. The whole is then dressed up with a shoe having the toe thinned down, and extending somewhat beyond the border of the foot.

The cicatrization does not take place from the coronary band alone, but also from the horny secretions of the podophyllous tissues. The repair is then quite rapid. The first dressing is removed after eight or ten days, and if everything goes on well need not be changed more than once a week.

The animal is not to be put to work until the hoof has obtained a certain consistency.

The operation for quarter crack is similar, except that only one groove is required in front of the crack, the tissues being exposed as in the operation for the removal of the lateral cartilages of the foot.

(*To be continued.*)

TRICHINÆ,

A LECTURE DELIVERED BEFORE THE STUDENTS OF THE
AMERICAN VETERINARY COLLEGE.

BY F. S. BILLINGS, V. M.

(Continued from page 396.)

In order to offer even a very condensed sketch of the evolution which these parasites undergo, it is better to begin with the non-matured or muscle form.

The parasite, in this form, limits its abode entirely to the striated, or motory muscles of the autositic organism. They have not been met with in the non-striated muscles or in the purely adipose tissue.

This seems to be the universally accepted opinion, and is in general strictly true. Nevertheless, in the investigations which we have ourselves recently made, we have frequently found the

encapsulated trichinæ in the midst of purely adipose tissue, *between the muscle-fibres of fattened hogs*; never, however, in the purely adipose tissue which lies upon musculature. In the cases in question I vainly searched for any indications of the sarcolemma of the muscle-fibres, but the parasite was enclosed in a form of capsule, nevertheless.

The encapsulated parasites may be met with in the striated muscles of all parts of the body. They may be found in the digital muscles; those of the abdominal walls; of the extremities; the eye; the ear; the larynx and pharynx; the tongue; the oesophagus; the diaphragm. The heart, however, appears to be a favored locality, for they have only been found in its flesh in very isolated cases. (Leuckart, Fiedler.) In making examinations of oesophageal musculature of a rabbit fed with trichinous pork, I was much struck with the abruptness with which one met with trichinae. In passing in review a microscopic section of the oesophago-cardiac portion of the stomach, when one passed from the musculature proper to the stomach, to that of the oesophagus, in fact, trichinæ could be seen where the latter interlaced or intruded itself between the fibres of the former. But in no case could I find a parasite in the non-striated fibres. These parasites are not, however, equally distributed over the musculature of the autosite, but on the contrary, seem to have their favorite places of abode. They appear to have a predilection for the muscles of the anterior part of the body. Among these, those of the tongue, larynx, pharynx, eye and masticatory muscles being especially favored. The muscles of the body are more favored than those of the extremities. Very few are found in the inferior portion of the caudal appendage of any animal. In the extremities, the parasites are found to be more abundant when the muscle-fibres begin to lose themselves in their tendinous extension, than in the body of the muscles.

The following interesting and valuable statistics with reference to the dispersion of the trichinæ over the organism, are taken from the "Miththeilungen am der thierarztlichen Praxis im Preussischen Staate."—1877-78, p. 99.

Microscopic preparations having an average length of 2 ctm.,

and a width of 1 ctm., were taken from the flesh of several hogs by which trichinæ had been constituted.

80 specimens from hog No. 1 gave the following:

a.	From pillars of diaphragm.....	12	trichinæ.
b.	" muscles "	4	"
c.	" " of larynx.....	1	"
d.	" " ribs.....		
e.	" " tongue.....		
f.	" " neck.....		
g.	" " eye and overarm.....		

None.

60 preparations from swine No. 2 gave the following:

a.	From pillars of diaphragm.....	10	trichinæ.
b.	" muscles "	6	"
c.	" laryngeal muscles.....	2	"
d.	" intercostals.....		
e.	" tongue musculature.....		
f.	" muscles of eyes and overarm and		
g.	" neck.....		

None.

40 preparations from swine No. 3 gave as follows:

a.	From pillars of diaphragm.....	40	trichinæ.
b.	" muscles "	25	"
c.	" laryngeal muscles.....	4	"
d.	" intercostals.....	6	"
e.	" tongue musculature.....	7	"
f.	" muscles of neck, eye and overarm...	2	"

40 preparations from swine No. 4 gave as follows:

a.	From pillars of diaphragm.....	40	trichinæ.
b.	" muscles "	30	"
c.	" laryngeal muscles	10	"
d.	" intercostals.....	10	"
e.	" muscles of tongue.....	6	"
f.	" " overarms.....	2	"

More striking, however, than the dispersion of the parasites over the various muscles of the organism, is the extreme multitude which have been estimated as infesting one organism. Leuckart estimates that in some of the cases which have come to his observation, that a single gramm of flesh lodged from 1,200 to 1,500, and assuming the muscles of a man to weigh forty pounds,

the number of these parasites infesting a human organism, at such a ratio, would sum up some *thirty millions*.

In Zenker's case—to be especially noticed later—Fiedler calculated that the woman must have lodged some *ninety-four millions*, and Cobbold assumes that *one hundred millions* of these encapsulated parasites may sometimes infest one organism at the same time.

Leuckart says that no one would look upon the above as exaggerated estimates, who, like himself, has found some 60 trichinæ in 10 mgms. of muscle.

In a report of the Chicago Academy of Sciences, noticed in the *Boston Medical and Surgical Journal*, Vol. LXXV., it was estimated that one cubic inch of pork, examined under their auspices, contained 10,000, and that a person consuming the ordinary amount of such meat used at a single meal, would introduce into his organism more than 1,000,000 of these parasites.

*District Veterinarian Rauch (Wittenberg), found numerous trichinæ in the muscles of a hog. Of 300 microscopic preparations, they failed in but three. In some preparations he found 30 in one focus; in others but five or six examples. As in 70 specimens, weighing one gramm, 350 trichinæ were found, one pound would contain 175,000, and if the flesh alone of a swine weighs 100 pounds, it would, at such a percentage, contain 17,500,000 trichinæ.

In many cases, however, the parasites are much less frequently met with, and one has to search through many microscopic preparations before meeting any, and these are only isolated examples. When sufficient time has elapsed from the invasion of the musculature and formation of the capsule, the same may be recognized with the naked eye as small white specks; such muscles appearing as if sprinkled with grains of fine salt or white sand. The calcification of the capsule begins about the fifth month after the invasion of the muscles.

In pork, however, this is not the case, the capsules never presenting this appearance, which must be due to the action of the fatty oils upon the lime, as an examination with the polarioscope

*Preus. Mittheil, 1877-78, p. 100.

reveals the presence of calcareous salts to a minor degree in the capsule.

The capsules do not always present the same form to the eye of the observer. Sometimes they are well elongated, while at others they are more round, the extremities at both ends of the capsule being almost entirely wanting. Their average diameters may be said to be 0.4 mm. in length and 0.26 mm. in breadth. They not unfrequently contain two, and sometimes three parasites.

(*To be continued.*)

A LARGE JABOT.

By J. ED. McNICOL, D.V.S.

NEW YORK, November 28, 1881.

On Sunday, the 20th inst., I was called to look at a peculiar case. The subject was a dun-colored gelding, 16 years old, 15½ hands high. He had the following history: Since the epizootic of 1872 he has had some difficulty in swallowing. When he took a couple of mouthfuls of water he was obliged to raise his head to swallow it, and seemed to have considerable difficulty in doing so. Still, he went on pretty well until the 7th of last July, when he was taken with vomiting of saliva and water, and remained in that condition for some little time, but finally getting to work again on the 9th of September, though never doing very well, and evidently not in a thriving condition.

On Thursday, November 17th, he was again taken with vomiting. At that time the upper part of the neck was very much depressed, and, after a great deal of straining, he would cough up and eject a couple of quarts of saliva and water.

I saw him on the following Sunday. He was then slobbering a great deal; his pulse and temperature were normal, and the respiration 18; a large swelling existed on the left side of the trachea, extending down about 12 inches, when it apparently ended; but below this, and on the right side, there was also a swelling, continuous with the first, and extending from 8 to 10

inches further down. The trachea was pushed out of position, the right jugular being under the trachea, which was in such a position that the edges of the rings could be felt underneath. When water was offered to him he drank greedily, and in about two or three minutes retching would commence, and, after coughing, he vomited the most of it. Pressure on the enlargement and towards the pharynx would produce vomiting.

I made no diagnosis, but requested Professor Robertson to go and see him. The Doctor was of the opinion that it was due to a stricture of the cesophagus, or to a jabot.

At this time the pulse and temperature remained normal. Before midnight he received a drink of water, which served to set him crazy, causing him to plunge and attempt to stand almost on his head, a position which he would assume and keep for some time. He finally died on the night of the 22d.

Dr. Robertson and myself made the post mortem, with the following results:

The cesophagus, beginning at 6 inches from the pharynx to within 8 inches of the stomach, was distended, and contained three quarts of finely masticated food, the dilatation increasing in size from above to the thoracic cavity, where it attained its greatest size, being at least 3 inches in diameter, and narrowing suddenly to within 8 inches of the stomach. On removing the contents, I found patches of ulceration on the surface, near the posterior end, and some also on the anterior part of the cesophagus.

BRONCHITIS VERMINALIS IN CALVES.

By W. A. THOMAS, V. S.

I was called, last week, to see some calves, 30 miles from here, near the town of Willer. I learned from the gentleman that the disease was *strongylus micrurus*. He stated that the calves were shipped from Wellington, O., to Chicago, where he purchased them about four weeks ago, 65 in number. When I reached his place half of them were dead. I think that all of

those that remained were diseased. I found them very much emaciated, with some exceptions; occasionally coughing, with expectoration of mucus; muzzle dry, with small sores, which were pitted or scabbed; watery or purulent discharges from the eyes; in the advanced stages dropsical swellings beneath the jaws; patient weak; respiration hurried; appetite good, until a few hours before death. In an autopsy of one, I observed the following lesions: All the lower portions of the lungs were hepatized, as well as a great part of the remainder. I could not find any cysts or tubercles. I found in the bronchia and trachea a large number of the parasites in a frothy mucus. I found, also, a few parasites in the intestines. The heart was filled to its entire capacity with firmly coagulated blood. I cut open the ventricles, and withdrew the clots, which showed a complete cast of these cavities, as well as of the auricles, and all of the vessels to some distance from the heart. The clot extended for about one foot in the posterier aorta, and to this were attached clots from the collateral arteries.

As our authors claim such great tenacity of life in the strongyle, will the editor please give a remark in the REVIEW as to the possibility of destroying them by inhalation?—[Fumigations are often recommended, but according to Steel "it is highly probable that parasites can stand a more severe dose of the medicines than the calves can."—ED.]

CHRONIC SCROTAL HERNIA — OPERATION — RECOVERY.

By C. W. CROWLEY, D.V.S.

In October, 1879, I was requested by Mr. A. W. Brown, of Collinsville, Ill., to visit his stock farm and examine a valuable eight-year-old stallion. I made the visit, and found the animal with a chronic scrotal hernia, which had first made its appearance about two years previous. It had continually increased in size, in warm weather, up to the time of my visit, when it reached to within a few inches of the animal's hocks, dangling to and fro, striking the legs at each step.

My opinion at the time was that he would have to be castrated by the covered operation. The owner, however, decided not to do anything with him until the following spring.

I was called again in May, 1880, and found the tumor slightly increased in size. The owner then wished to have him either castrated, or have something done to make him less unsightly and left a stallion. I then decided not to castrate him, but to remove a part of the scrotum.

The animal was then put on a very short diet until the third day, when he was cast. Immediately on turning him on his back the bowels slipped into the abdomen, the testicles slipping well into the inguinal ring. A clamp was then placed on the scrotum, as close up to the testicles as possible (it taking one over a foot in length to encompass it). The animal was then allowed to rise. The sloughing commenced a couple of days after, and continued for about six or seven days, when all came away, ordinary antiseptic dressings being used. About a month after the operation, when all inflammation had subsided and the scar nicely healed, the horse took moderate exercise, at which time the scrotum extended down about as far as it would in a perfect state, but its lateral dimensions were greater. It has retained that size since, and the horse has been both driven and used in the stud.

STRANGULATED SCROTAL HERNIA—ASPIRATION —RECOVERY.

By the Same.

In November, 1878, I was requested to see a stallion owned by Mr. Ignacio Vasquez, a horse that he had purchased a short time previous to send to his ranch in New Mexico. I found the animal in great distress, and suffering from a strangulated scrotal hernia. I first administered a dose of tincture of opium and linseed oil. When the horse laid down again his legs were secured and he was turned on his back, in which position I could give him a more thorough examination. Finding that there was considerable gas in the imprisoned bowel, I decided to puncture,

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as is done in human practice. An exploring trocar was used, and in about fifteen minutes after the escape of the gas, and immediately after the horse making a struggle, the bowels slipped back with a slight gurgling noise. The horse recovered without any more interference on our part. I afterward learned that the animal had two previous attacks, but got over them without any assistance whatever.

EDITORIAL.

COLLEGE OF VETERINARY SURGEONS OF AMERICA.

In the last number of the *Review*, we published a notice from one of our exchanges of the establishment of a new Veterinary College, to be known as the *Northwestern*, and which is to be opened in connection with the Minnesota College Hospital. To this new school we tender our best wishes, and gladly welcome its appearance, as one of the recognitions of the need which is felt by our people of a better training of our veterinarians. This country is large enough to support liberally still more institutions of this kind, and any which shall start with the resolute intention of doing good and thorough work will in a few years reap the reward of their labors in the popular appreciation of the labors of their alumni. Of the members of the Faculty, we are acquainted with but one, Prof. C. C. Lyford, M.D., V.S., and in the deserved repute attained by this gentleman may be found a sufficient guarantee that the profession will never be disparaged by those whose diplomas shall bear his name.

There are in the foundation of veterinary colleges in the different parts of the United States points which must be considered aside from the mere fact of furnishing the people with men of education to attend their diseased stock. It is the consequent influence which must necessarily be acquired by the profession at large. Heretofore, and up to a few years, graduated veterinarians in America were of foreign origin. It is only within the last 17 years that an American could boast the possession of an American diploma. Now, however, the increase of veterinary schools gives

good promise that home-born and home-bred practitioners will soon be found in numbers sufficient to fill the almost empty ranks of our profession.

Another important question will also, we believe, arise from this. It will be the necessity and possibility of the formation of a large and influential association, which will be exclusively constituted of regular practitioners, and which may in its organization include similar principles to those embodied in the Royal College of Veterinary Surgeons of England. This Association ought to elect a Board of Examiners with whom should be lodged the exclusive right of granting the diploma, which should be the only degree identifying and qualifying the regular practitioner. The State schools ought to be in the nature of preparatory institutions, whose students, while receiving an acknowledgment of their standing, ought not to be recognized as full veterinary surgeons without passing a final examination by the Board of Examiners which would then constitute what might be called the *College of Veterinary Surgeons of America*.

We feel assured that if such an association were founded, and such organization chartered, much good would result. First, the various titles and degrees in vogue at the present time would be reduced to a single and common title, and there would be no more V.S.'s, V.M.'s, D.V.S.'s, D.V.M.'s, etc.—but a single universal and comprehensible American title, whatever that might be. Again, how much more thorough and careful the education would necessarily be, when the question of success in a school would be measured by the number of its graduates, and each institution would exert itself to deserve the repute which should give it a preference over its fellows among those seeking their degrees. As a natural consequence, a general similarity in the curriculum of studies would be established in all the schools, requiring a proper amount of preliminary education, a point which in the present condition of affairs would be looked for in vain.

The fact, as it seems to us, is that the veterinary profession as it exists now in the United States ought to form such an association at once, and choose their Board of Examiners without needless delay.

There can certainly be found to-day a sufficient number of qualified men in the country entitled to confidence, who would discharge faithfully and acceptably the duties indicated. Let them be appointed; let all the veterinary schools in the country prepare young men for the degree which this Board will be authorized by law to grant, and we have no doubt much good will be derived by the practitioner in his professional standing, and by the profession at large.

We cannot overlook again another benefit that would result from the formation of such a body. It is the possibility of arriving at the solution of problems which have baffled for years the veterinary profession of Europe, and which already in this country calls for interference. It is the prevention of quackery, or at least the prevention of its increase beyond its present extent.

We all know that previous to the establishment of Veterinary Colleges in America there were no opportunities offered for study to those inclined to follow veterinary practice. The result has been that many took up the matter as a business, and entered the profession and became successful and competent practitioners through their own exertions. But self-made men as they remain, they are deprived of many of the privileges which are granted to the regulars, and have been held somewhat aloof by the whole body of regular veterinarians. Equal to the graduates in many points, there is yet a barrier between them which neither is willing to seek to overcome, much to the detriment, we are persuaded, of both parties.

Could not, then, the College of Veterinary Surgeons of America, by the regulations of its organization, be empowered to give these gentlemen a special examination and grant them a proper recognition? If England, after many years, has seen it to be advisable to do something analogous to this; if she has thought proper to grant recognition to many practitioners which were under special conditions, it seems to us very reasonable that the same might be done on this continent, where the profession is yet young, and where the regulars and irregulars are yet so few in numbers, and consequently more likely to come to satisfactory arrangements.

We know that many difficulties are in the way, but we do not think them insurmountable, and we sincerely believe that if the veterinarians now practicing in the United States will come together, such an association can be easily formed. It is with the hope that the subject may be considered by the profession, and with the desire to have it discussed, that we have made these remarks, and that we offer the pages of the REVIEW to those who may be desirous of expressing their views on this important subject.

VETERINARY ETHICS IN ADVERTISING.

Although it may be a difficult and delicate point to decide, in many instances, just what constitutes a breach of medical ethics, yet there is a line beyond which we may not go without committing a flagrant violation of what might be called our "moral code."

We do not propose to speak, in this connection, of the practices of the "horse-doctors" and quacks, who recognize no authority of common rights, nor display any of that modest dignity which should characterize the conduct and bearing of the professional veterinarian.

It is to those within the ranks of the profession to whom our remarks are directed, and to the younger members in particular. After graduation, the question arises, how shall I endeavor to make my acquirements known to the public, and by what means may I hope to elicit a share of patronage?

Judging from what we daily see, it would seem that the methods employed to "establish a practice," are almost as universal and varied as are the individuals so striving. Many of these methods are highly objectionable, and do not serve to bring aught but reproach upon the institution granting the diploma, and upon the person holding it.

Not giving the matter the careful consideration it deserves, or a too ambitious greed for practice, will in all probability explain the mistakes made by young men just leaving college.

Have they not been taught the *dignity* of their profession?

Then the fault is in the teaching and lives of their instructors. We can scarcely believe this to be the case.

Where, then, is the difficulty, and how can we remedy it? Let the answer be in the form of a statement as to what means can be employed without doing any injustice to the profession or its members.

An advertisement in a paper, that simply states your profession, residence and office hours, cannot reasonably be objected to. Cards bearing only the same, are unobjectionable, and may be presented in person. These are as far as one can go in this direction, between a conscientious physician and a quack.

Advertisements of specialities, of secret medicines, the issuing of circulars and posters, or newspaper puffs, cannot be too strongly condemned and discouraged by every one who has the interests of the profession at heart.

We do not intend to speak here of charges, of the duties of consulting surgeons, &c., &c. It is only to bring the subject of advertising before the younger members of the profession, that these remarks are made, and it is to be hoped a timely suggestion will correct the errors of some, and prevent their recurrence in others. One had better fail in procuring practice than to obtain it by resorting to the methods employed by patent medicine men and unscrupulous charlatans.

ARMY VETERINARY REPORTS.

INSPECTION OF HORSES AND MULES FOR ARMY SERVICE.

BY A. A. HOLCOMBE, D.V.S., United States Army.

Horses and mules for the use of the army are now generally purchased by contract, instead of in the open market, as was the custom at one time. When a contract is made, it is customary to insert in the body of the document an article providing for the inspection of the animals presented for purchase, as follows: "The horses (or mules, as the case may be), herein contracted for shall be examined and inspected, without unnecessary delay after being delivered, by a person or persons appointed by the United

States; and after such inspector shall have certified that they are in all respects as required by this contract, they shall be received and become the property of the United States."

The specifications for the government of inspectors are found in General Orders No. 17, from the A. G. O., dated March 1st, 1876. The requirements are: "Cavalry Horses.—To be geldings, of hardy colors, sound in all particulars, in good condition, well broken to the saddle, from (15) fifteen to (16) sixteen hands high, not less than (5) five nor more than (9) years old, and suitable in every respect for cavalry service.

"Artillery Horses.—To be geldings of hardy colors, sound in all particulars, in good condition, square trotters, well broken to harness, from (15) fifteen to (16) sixteen hands high, not less than (5) five nor more than (9) nine years old, and suitable in every respect for artillery service.

"Mules.—To be strong, stout, compact animals, sound in all particulars, in good condition, well broken to harness, not under (14) fourteen hands high, not less than (4) four nor more than (9) nine years old, and suitable in every respect for the transportation service of the army.

"When work-horses are to be purchased they should be sound in all particulars, fifteen and one-half hands high and upwards, strong built, well broken to work in harness, not less than four nor more than nine years old."

These specifications, or such parts as apply to the animals being contracted for, become a part of the contract and presumably are the instructions by which the inspectors are to be guided.

The height, condition and gaits may be determined by any one, as may also the question whether the animal is broken to saddle or harness. Which the "hardy colors" are, the regulations do not say, and I believe the question is left to the individual opinion of the inspectors. It seems to be the general practice to reject white, dun and cream-colored horses, although it is not generally claimed that they are not hardy horses. Major Arnold, now of the 6th Cavalry, in his "Notes on Horses for Cavalry service," says the desirability of color is as follows: "dark bay, bay, brown, iron-gray, strawberry-roan, dark sorrel, black and

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Perhaps the determination of the age is not a matter of any great importance, seeing that most men acquainted with horses can generally tell whether or not the animal has passed the prescribed age. If in any case there is doubt, the inspector can, of course, reject the animal as unsuited for the service. I have seen horses thirteen years old bought for cavalry service in which the mouth was not deceptive, and I have seen "bisheded" mouths deceive the inspector. But these instances must be comparatively rare unless the inspector is unusually deficient.

Under the specification of "and suitable in every respect for cavalry service" must come the question of *conformation*, a very important one, and one that must necessarily be intimately associated with the remaining specification "sound in all particulars." That this last specification out-weighs all others in importance, will not be questioned by those acquainted with the work of our cavalry horses, and the general tendency to certain diseases which exists to so marked a degree among American horses. To determine these questions in the purchase of cavalry horses, would seem, to the Veterinary Surgeon, to require the knowledge of the veterinarian and the experience of army service. The same questions, only in lesser degree, are at stake in the purchase of artillery and work-horses, and mules.

In so far as I know, there are no regulations governing the appointment of inspectors of horses and mules. They have sometimes been appointed by a special order of the Department commander, and in other instances they have been named by a depot Quartermaster, who was designated to receive and pay for the animals bought.

That inspectors are always appointed because of their especial fitness to perform the duties of the office, is not apparent. In fact, some inspectors have been entirely ignorant of what constitutes defective conformation, while nearly all those I have known have but the most superficial knowledge of what constitutes an animal "sound in all particulars."

One would logically infer that a cavalry officer might properly serve on a Board of Inspectors for the purchase of horses for

cavalry service. So, also, might the artillery officer inspect artillery horses and the Quartermaster mules and work-horses. But what opportunity a young officer of infantry has to learn of the qualities necessity in cavalry and artillery horses I am not aware. Nevertheless, they are occasionally made inspectors.

In some instances civilian employes in the capacity of wagon masters, who are considered to have some knowledge of animals in general; are appointed inspectors; occasionally they constitute the entire Board. But which of the inspectors named above know what constitutes soundness? Are any of them acquainted with ailments of animals used in army service and at the same time capable of detecting them? To the student of animal diseases the answer is self-evident and scarce needs recording—*not one*. Let me offer some statistics on the subject, gathered during the last three months of 1880 and the first month of 1881.

During these four months I inspected 542 animals, all of which had seen some service. But 253 of these were inspected for frost bites only, and no record was kept of their other complaints, leaving 289 whose records appear below. Of these 289 animals, 217 were diseased: 128 being horses and 89 mules. Among those 217 animals were 267 cases of disease, as follows:

<i>Diseases.</i>	<i>Animal.</i>	<i>No.</i>	<i>Remarks.</i>
Sidebones.....	Horses—	64	In both fore feet..... 41 In right foot only..... 15 In left foot only..... 4 Not recorded..... 4
	Mules—	40	In both fore feet..... 25 In right foot only..... 5 In left foot only..... 4 Not recorded..... 6
Low ringbones...	Horses—	21	In both fore feet..... 9 In right foot only..... 7 In left foot only..... 2 Not recorded..... 3
	Mules—	2	In both fore feet..... 1 In right fore foot only.... 1

High ringbone....	Horses—	1—In right hind foot only.....	1
	Mules—	1—In right hind foot only.....	1
S.b.&Lrb.together.	Horses—	4—In both fore feet.....	1
		In the right foot only.....	3
	Mules—	1—In the left fore foot only...	1
Spavins.....	Horses—	23—In both hocks.....	2
		In left hock only.....	13
		In right hock only.....	7
		Not recorded.....	1
	Mules—	27—In both hocks.....	7
		In left hock only.....	11
		In right hock only.....	8
		Not recorded.....	1
Hock lameness....	Horses—	1—In left hock only.....	1
	Mules—	3—In both hocks.....	1
		In right hock only	2
Curbs	Horses—	1—In both hocks.....	1
Stringhalt.....	Horses—	6—In both legs.....	4
		In left only	1
		In right only.....	1
	Mules—	4—In both hocks.....	2
		In right only.....	2
Periostitis.....	Horses—	6—In os coronæ, fore feet.....	5
		In right fore foot only....	1
	Mules—	4—In both fore feet.....	2
		In left only	2
Lame in front, sim- ple causes.....	Horses—	6—In both feet.....	4
		In left foot only.....	1
		In right foot only.....	1
	Mules—	4—In both feet.....	2
		In left foot only.....	2
Broken knees....	Horses—	1—In left only, gunshot wound.	1
Knee-sprung.....	Horses—	6—In both legs.....	4
		In right leg only.....	1
		In left leg only.....	1

Splents, large....	Horses— 2—	In both legs.....	1
		In left leg only.....	1
	Mules— 1—	In both legs.....	1
Thickened fetlocks.	Horses— 5—	In both fore legs.....	1
		In left fore leg only.....	1
		Not recorded.....	3
	Mules— 1—	In right hind leg only.....	1
Ossifications.....	Horses— 2—	In tendons left fore leg.....	1
		In tendons left hind leg	1
	Mules— 1—	In tendons left fore leg.....	1
Thickened tendons.	Horses— 2—	In both fore legs.....	1
		In right fore leg.....	1
	Mules— 2—	In both fore legs.....	2
Caries.....	Mules— 1—	In os pedis, right fore foot..	1
Cocked ankles...	Horses— 2—	In both fore legs.....	1
		In both hind legs.....	1
	Mules— 1—	In both hind legs.....	1
Quarter cracks...	Horses— 2—	In both fore feet.....	1
		In left only.....	1
Fistula.....	Horses— 3		
Ophthalmia.....	Horses— 2—	In both eyes.....	1
		In right eye only.....	2
Blind.....	Horses— 3—	In both eyes.....	1
		In right eye only.....	2
	Mules— 5—	In left eye only.....	4
		In right eye only.....	2
Thick wind.....	Horses— 2—	Laryngeal.....	2
Club foot.....	Horses— 2—	In both fore feet.....	1
		In left fore foot only.....	1
	Mules— 2—	In both fore feet.....	2
Shoulder lamen'ss.	Horses— 1—	Right	1
Founder.....	Horses— 1—	Chronic	1
Sprained loins....	Mules— 1—	Rendered useless.....	1
Paralysis.....	Mules— 2—	Upper lip, left side.....	1
		Both hind legs, partial.....	1

As will be observed, there are more cases of side bones than any other diseases among both horses and mules. That 50 per

cent. of all the horses diseased should have this affection of the fore feet affords, to my mind, an instructive commentary on the defects of the inspection.

First, let me give the ages of these 64 horses, and then make my deductions :

No.	<i>Yrs. old.</i>	No.	<i>Yrs. old.</i>	No.	<i>Yrs. old.</i>
6.....	6	2.....	11	1.....	16
7.....	7	6.....	12	1.....	17
12.....	8	3.....	13	2.....	18
5.....	9	2.....	14	5.....	20
2.....	10	3.....	15	1.....	25
Unobserved.....	6				

Just 50 per cent. of the cases had not passed the tenth year!

Now most cavalry horses are bought in the latter part of summer or in the autumn. If they are sent to the various regiments for which they were purchased, it is so late in the season that but little or no campaigning is done until the next year, consequently they have no hard work for several months after entering the service. Generally, some are retained at depots as a reserve, and are issued as required, so that a large part of the horses bought for cavalry purposes each year receive but little actual work until the summer following their purchase.

In breeding horses in that part of the west where cavalry horses are most often bought, it is customary to have the foals dropped in the spring of the year. I believe, from the observations I have made on this point, that this is true of about 90 per cent. of all the horses raised. Very few spring colts shed their corner incisors early enough in the season to permit the inspector to pass them as five-year-olds. Autumn colts, on the other hand, have these teeth well up at this season of their fifth year, and so are not refused on account of want of age. With the exception then, of not more than 10 per cent., cavalry horses do no service until they are six years old or over.

The majority of the horses which were the subjects of the above reported inspections, had been sent to the Fort Leavenworth depot for disability, recuperation, or by reason of dismount-

ing infantry companies. Consequently the per centage of diseased animals is unusually large.

Furthermore, all had had opportunities for becoming diseased or disabled from actual service (wear and tear). But a reference to the above table shows that about 10 per cent. of the cases of ringbone were but six years old. This, then, would limit them to not more than one summer's campaigning. About 11 per cent. were seven years old, 19 per cent. eight years old, eight per cent. nine years old, and three per cent. ten years old, the greatest per centage appearing at eight years old. Or, to sum the matter up, 50 per cent. of the diseased horses had sidebones, and 50 per cent. of the sidebones, or 25 per cent. of all the diseased horses, had not passed their tenth year: or, in other words, admitting that all had entered the service at five years past, which is by no means probable, half of the sideboned horses had seen on an average, but two and eleven-sixteenths years of service. Another important fact in connection with this disease is, that it is the young horses that are disabled by it, while in the older ones incapacity does not necessarily follow its development. Of course, the presence of sidebones in all instances serves to impair the elasticity of the gait, causes more or less stumbling and detracts from the subject's value for cavalry purposes.

As was stated in the table above, 41 out of 64, or over 64 per cent. of the cases had the disease in both fore feet; 15, or more than 23 per cent., in the right foot only, and but four in the left fore foot. I suppose it is beyond question by any one that cavalry service of necessity tends to develop disease of the fore-feet by reason of the weight which the animal is compelled to carry. Naturally, sidebones would be expected as the result of the concussion. That the right foot is more often affected than the left is no doubt to be accounted for on the ground that most horses, in galloping, lead with the right foot, thereby subjecting it to a greater amount of concussion than its neighbor.

Now, what seems to me the important question is, Are all these cases of sidebones developed as the results of the cavalry service? If the specification "sound in every particular" is observed by the inspectors, the disease evidently develops in a large per-

centage of cavalry horses during a comparatively short service.

But is it possible, with the inspectors generally appointed, to get only such horses as have no symptoms of this disease? Without hesitation I answer emphatically, No; it is not possible. Of all the inspectors, excepting only the Veterinary Surgeons, of whom I have had any knowledge, not one has been competent to detect the disease at all. Some, perhaps the majority, have never even heard of it. Neither do horse-men, breeders, dealers, etc., know what the disease is.

That sidebones is a very prevalent defect in horses and mules in the western States, is evident from the large number of cases which appear in the animals presented to the Government for purchase. The animals we are called upon to inspect for cavalry purposes are particularly selected by the contractors, with an eye to soundness of the fore feet; and yet I think it safe to say, judging from an inspection of about 2,000 horses, that at least 20 per cent. have sidebones of various sizes. If I mistake not, Veterinary Surgeon Glover of the English Army Veterinary Department remarked on the frequency of this disease, among the animals presented to him for inspection, on the occasion of his visit to St. Louis in the early part of 1880.

That the great cause for the frequency of this disease in this part of the country, is due to the breeding of the poorest mares, is susceptible, I think, of the most ready proof. Mares rendered almost useless for purposes of labor from the presence of large sidebones, ringbones, spavins, and blindness as a result of periodic ophthalmia, are considered, not only the most available but those best adapted for breeding purposes. As a consequence a large percentage of colts are congenitally diseased or inherit strong predispositions to these and similar diseases.

Considering the prevalence of this disease of sidebone, the inference is that inability on the part of inspectors to detect it must, in part at least, account for the frequency of its occurrence in cavalry horses. Nor is this an unwarranted inference, for I have seen many cases of sidebones passed by inspectors and the affected animals sent to do service. That they can rarely remain serviceable for more than a short period of time, especially in our

rougher western country where the majority of the cavalry does duty, needs no explanation. Some of them break down as soon as put to duty, while others stumble, get lame, are sore in front from fever of the feet or chronic periostitis; develop low ring-bone, navicular arthritis and other complications.

Now, what is true of sidebones is true of nearly all other diseases, i. e.: non-professional inspectors are not capable of detecting them in many instances. And that other diseases which seriously impair serviceability are of frequent occurrence also, is seen from a reference to the above table.

The mules inspected, it will be observed, presented fewer cases of sidebones than did the horses, 45 per cent. of the diseased ones being affected with it.

Like the horses, more than half of them (62 per cent.) had both feet affected; unlike the horses, the right foot, in so far as a record has been kept, was scarcely more prone to the disease than the left. But it is important to note that sidebones do not so surely impair the usefulness of the mule as is the case with the horse. Having only their own weight to carry (pack and saddle-mules excepted) concussion is comparatively slight, the growth of the bones correspondingly slow, and the effect less disastrous.

Respecting saddle-mules it is in place to chronicle the observation I have made, that this disease is very frequent in these animals, and I cannot doubt but that it is due to the carrying of the teamsters.

Sub-periosteal deposits on the os coronæ (low ring-bones), are very much more frequent in horses than in mules, appearing in 16 per cent. of the former and but a fraction over two per cent. in the latter. High ring-bones are of infrequent occurrence in either the public horse or mule.

Of the diseased animals reported in the table, more mules were spavined than horses—37 per cent. of the former to 18 per cent. of the latter. In the horses, both legs were seldom found diseased, while the mules presented about 25 per cent. of these cases.

In 56 per cent. of these diseases in the horse, the left leg alone was the seat of the disease. The left leg in the mule was also more often affected than the right by about 10 per cent.

Of other diseases there was a considerable variety, but only a few cases of any one.

To conclude, the effectiveness of the cavalry and transportation services of the army must depend, to a very considerable extent, on the stability of the horses and mules, and their serviceability depends largely on their soundness. Of course it is not to be supposed the specification "sound in all particulars" is to be technically construed, else there would be but few animals capable of successfully passing a professional inspection. But it is of the utmost importance that the animals passed be practically free from disease. The diseases that are well-marked are, of course, readily detected by any one of common acquaintance with horses; but these are not the ones likely to be presented for inspection. It is the diseases but imperfectly developed, the diseases that present only the premonitory symptoms and as yet cause no lameness or other readily perceived signs, that are beyond the detection of the best informed non-professional inspectors.

To illustrate, take some of the most common diseases. Where, for instance, is the inspector, unless he be a veterinary surgeon, competent to detect cataract in the earlier stages of its development? And yet it is quite often met with in the horses presented for inspection. In some of these cases, as is well-known, evidence of the existence of the disease is to be detected by the use of the ophthalmoscope alone. Is there a non-professional inspector capable of making the examination? The same difficulties exist regarding the detection of all the many diseases that cause lameness. In the earlier stages of their development, they readily escape detection except at the hands of a veterinary surgeon, for at first they rarely cause lameness, and the non-professional generally consider an animal sound in the limbs, unless he is lame or shows some well-marked evidence of disease.

That which is true of external diseases holds good also in the internal disorders. The lesions of old pneumonias and pleurisies; of heart diseases and the milder forms of brain affections; the chronic gastric and intestinal disorders, and the first stages of emphysema of the lungs are conditions, the detection of which cannot possibly be accomplished by any but the veterinary surgeon.

Of course many good horses enter the service, no matter who does the inspecting, and we consequently find a very fair per cent age of them in the cavalry service that have reached a good age. I have seen quite a number from fifteen to twenty-five years old, and it is not unreasonable to infer that the majority of them have been in the service anywhere from five to fifteen years or more. Is it not possible to greatly increase the percentage, in the army, of these horses of long service? If it is to be accomplished at all, it will be through the employment of professional inspectors. Unlike the laity, the veterinary surgeon looks beyond the beauty of outline, which is too often the only recommendation an animal has, for those qualities upon which the serviceability must depend. On the other hand the smooth, round-built handsome-appearing animal is the one that mostly commends itself in the eyes of the inspector unacquainted with animal diseases.

I do not know if others have made the observation, but in the inspection I have made the handsome animals are the ones most likely to prove, on a close inspection, either diseased or so defective in local conformation as to demand their rejection.

It is the handsome horses of the service which are generally the first to leave it; the old ones in service have had other qualities which secured their retention.

The amount of money yearly appropriated by Congress for the purchase of cavalry and artillery horses is \$200,000. The average price paid for horses during the past two years has been \$130 per head. The sum appropriated would therefore purchase about 1,500 horses. In the cavalry and artillery, taken together, there are about 7,000 public horses. It seems necessary then, to replace about 21 per cent. of the horses of the service yearly. Now, when it is considered that the light artillery has but little active duty to perform in time of peace, and that only a portion of the cavalry does campaign duty each year, the percentages of loss are certainly heavy. The yearly loss from death and usual wear and tear of the service, of companies not in the field, ought not to exceed on an average, with proper veterinary medical attendance, 5 per cent. If this estimate be true, and but half of the cavalry do field duty each year, the yearly losses to this part of the cavalry reach 37 per cent. But even the average loss to

the whole service is excessive; it ought not be more than 10 per cent. instead of 21.

To obtain such a result seems at least within reason, and the first step in that direction will be a proper inspection of all animals presented for purchase. There seems to be no good reason why this has not already been done. A general order providing for the appointment of inspecting boards, and defining their composition, would place the matter on its merits and determine whether the veterinary surgeon's qualifications do not render his services even more valuable here than in the hospitals.

It undoubtedly would be economy on the part of the Government to purchase no animal until inspected and passed by a competent veterinary surgeon.

About 10,500 horses and the same number of mules are kept in the military service. The loss of animals during the year was 2,056 horses and 1,281 mules. The proceeds of sales thereof deposited in the treasury in the year, and not available under existing laws to replace those died, lost or sold, was \$80,207.97. The average cost of 1,438 cavalry and artillery horses purchased during the year was \$125.12. Total was \$179,926.71. The cost of 1,006 mules and 29 draught horses for the trains purchased was \$117,074.80, the average being for mules \$111.07 each, and for draught horses, \$138.79. Thus the sales of animals worn out produced about one-fourth of the cost of replacing them.
—Extracts from the *Quartermaster General's Report for the fiscal year ending June 30th, 1881.*

ADDRESS.

THE VETERINARY PROFESSION.

BY DR. W. MCEACHRAN.

The session of the Veterinary College was opened by an address from the Principal, Dr. McEachran, when there was a good number of students present and also some members of the medical profession.

After welcoming the students, Dr. McEachran proceeded to

point out the new departure which had taken place in connection with the veterinary profession during the last few years. In consequence of the spread of contagious diseases amongst cattle, whereby the food supplies of the people were seriously affected, various Governments had been led to pay greater attention to veterinary science, which had been one of the last, if not quite the last, to emerge from the darkness and superstition of what are called the dark ages; the village farrier having been looked upon, until comparatively recent times, as possessing all the knowledge necessary for the cure of diseases amongst the brute creation; though in ancient times, as far back as Homer, considerable importance was attached to the curative treatment of the lower animals. But at the beginning of the present century, veterinary colleges were established in various countries in Europe and many left the medical profession for the veterinary. Since that time the science had made great progress; and extensive and valuable additions had been made to its literature. The veterinary profession required equal intelligence, education and scientific knowledge with the sister profession; and it was a mistake to regard it as a degree or two below the so-called liberal professions, as it was regarded when ignorance, cruelty and superstition held sway. In some respects it was more difficult than the medical profession, which had but one animal to deal with, capable of speech; whilst the veterinary profession had to deal with the whole family of domestic animals; some of which might have intelligence, but lacked the power of expressing it. The importance of the profession had never been felt more than during the last two or three years. He then referred to the enormous losses sustained in England and the United States through the neglect of the science and the destructive consequences of pleuro-pneumonia, the foot and mouth disease, and rinderpest. Referring to the spread of these diseases in the United States, he said that if they once crossed the Alleghany Mountains, the matter would be beyond the Government's control. The American Government had done nothing towards the support of the veterinary colleges, or the recognition of the graduates, except recently in the changed order of things in connection with the

army. Up to a few months ago any groom or farrier was eligible for the position of a Veterinary Surgeon in the army. Now only qualified members of the veterinary profession were admitted, and they were raised to the rank of officers; whereas before they had only the rank of sergeant. There had also been a veterinary department added to the Department of Agriculture; and it was the intention of the Department at Washington to appoint port inspectors, as in Canada. Amongst the individual States, Illinois had taken the initiative in organizing a Veterinary Department, and other States were following. He represented Canada as treating the profession better than either the United States or Great Britain, though he did not say that even here the Government gave all the assistance it should. In Germany, France, Russia, Norway and Sweden large sums were voted annually for the support of the veterinary colleges. They were, in fact, Government institutions. He proceeded to give a detailed statement in reference to the colleges in European countries, and concluded with some practical advice to the students, in which he spoke of the importance of their studying pathological anatomy, chemistry and histology, also of the importance of the microscope. For the practical application of the knowledge thus obtained they would have to study *materia medica* and *therapeutics*. He advised them to attend all the lectures, take notes of them, and to read up the subjects treated of in the lectures from the text books. He also urged upon them the duty of kindness towards the lower animals, and that they should never inflict unnecessary pain upon them.

Dr. Osler, at the close, addressed a few words to the students. He said that during the past five years a change had come over the public mind in reference to the veterinary profession; but he said its importance was realized much more fully on the European continent than in England or the United States. As to the status of a veterinary surgeon, it depended entirely upon himself, and in regard to this he could not do better than recommend them to follow the example of Dr. McEachran, as to the way in which he carried on his daily work, and conducted himself in every relation in life.—*Montreal Gazette*.

AMERICAN VETERINARY COLLEGE HOSPITAL. REPORTS OF CASES.

BY R. H. HARRISON, D.V.S. House Surgeon.

THE EMIGRATION IN INFLUENZA.

A large number of cases have been admitted and successfully treated in the hospital during the prevailing epizootic; many complications have been noticed, among which have been severe epistaxis, continuing for some time after convalescence had taken place; purpura hemorrhagica also in a few cases. A passive form of laminitis has been observed in several instances, but has proved readily amenable to treatment in the shape of cold poulticing. Spinal troubles have not been so frequent or severe as they were during the last spring and fall. Lung diseases, also, have not been as frequent a sequence. Intestinal complications, indicated by colicky pains, anorexia and purging, have been very common; the edematous and rheumatismal forms also have been frequent. The form of treatment that has been carried out has been stimulation, and, of course, treating special symptoms as they presented themselves. A special treatment, which has been designated the "Emigration of Influenza," has been of signal service; this has consisted in altering the hygienic surroundings of the patient as much as possible, removing him from the stall where he was to another better lighted and ventilated, or placing in a large box when possible, giving especial attention to the cleanliness of the stall and bedding, keeping the animal warm and comfortable, and not allowing any discharges to accumulate on his body, watching his appetite, and taking care that any remainder of the food should be immediately removed. Cases which have been treated outside, and sent here with the history that the animal had a perfect loathing for food of all kinds, and on examination presented a high temperature, 105-6-7°, pulse 60 or more, weak and small, together with great stupor and debility—these cases, time and again, when placed in a commodious box stall, would at the first meal eat from three to four quarts of oats, and the following morning the temperature would be found to be

SPITAL.

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normal, the pulse stronger, the eyes clearer ; in short, it would be difficult to recognize the patient as the same animal of the previous day. This has also occurred in patients who contracted the disease in the hospital ; in one box they suffered from complete anorexia, but when removed to another the change seemed at once to show its beneficial effect. In the treatment of cases outside, the same result was obtained, and it was especially noticeable that when a patient was removed from a cellar stall to one on the upper floor a perceptible change for the better was apparent ; even while in a cellar stable if they were removed from a single stall and turned loose in a box. These facts, proven by repeated experiments, show that change of locality and good hygiene prove a valuable auxilliary in the treatment of this disease. Also, in diseases of the air passage in many cases when animals have been sent to us, often coming from stables where everything is kept scrupulously clean, the same change would be manifest, the patient at once beginning to eat, and thereby helping nature to tide over the attack. It would be well, therefore, to attend to these conditions and make them paramount. Medicinal treatment would have to be but slight, and our patients would get well more quickly, and leave our care in a much better condition to resume their work.

SUPPURATIVE PERIOSTITIS.

An interesting and unique pathological condition, which has not been described, as far as I know, in English or French veterinary literature, has occurred in a horse recently discharged. It arose as a complication of trephining the sinuses of the head. The complications and accidents spoken of in different works on surgery as a rule in this operation, arise from lack of skill on the part of the surgeon, also when the animal is improperly confined. The trephine which has been commonly used is of large diameter —of late it has been recommended to use as small an instrument as possible, one whose calibre will only admit a small rubber pipe for the purpose of irrigation, claiming that the repairing process

is by far more rapid and that it leaves a cicatrix scarcely noticeable.

The case referred to was a valuable running horse, a sorrel gelding, eight years old; he was affected with a discharge from the left nostril and an accumulation of pus in the sinuses of the same side. He was trephined first at the nasal sinus, an ordinary instrument being used, which was of large diameter, and had coarse teeth; a day or two after the superior maxillary sinus was opened with a small instrument having fine teeth. The latter, as soon as the accumulation of pus ceased, closed up quickly, and left but a slight cicatrix. The nasal opening at first appeared to be doing finely, closing rapidly. Two days after cicatrization had taken place, a slight swelling was observed an inch from the opening and nearer the median line, very tender to pressure and rapidly increasing in size. This proved to be an abscess, which was opened and cleaned by antiseptic injections of carbolic solution; this abscess closed, but another formed in close proximity to it, which was opened and pus evacuated; also two small pieces of bone were removed. Inserting a probe, it was found that these abscesses connected with each other, and with the nasal opening, by fistulous tracts, and that the bone was denuded of its periosteum; injections of carbolic solution were forced through the tracts for a few days, which resulted in the cleaning of the tract leading from the nasal opening to the first abscess. Another tract formed, however, from which another abscess resulted within an inch of the eye, on a horizontal line with the last, was opened as before, together with the fistula; finally another abscess and tract formed near the external canthus of the right eye. This was opened and a minute piece of bone removed, after which the parts healed without difficulty. As a result a sort of traveling periostitis was set up, proceeding from the left to the right, which gave rise to bony deposit along the line of the fistulous tract, more marked where the abscesses had formed than in other places. The probable explanation of this condition is, that a minute fragment of bone, detached by the trephine, had imbedded itself under the skin, and had tried to work its way out, being prevented from escaping by the too rapid closing of the wound.

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orse, a sorrel gelding, purchased six months ago by a livery stable keeper, was noticed at the time to have a thickening on the outside of the near hind fetlock, but, as the animal was not lame, it passed unnoticed until a few days ago, when, apparently increasing, the animal was sent to us for advice and treatment. An abscess was in the process of formation at the seat of the induration, and hot poultices were applied. This treatment was carried out, and when the case was next under observation the abscess had ulcerated through—the discharge was thin and peculiar to diseased bone. Introducing a probe, a foreign body was detected, which at first was thought to be a detached piece of bone. Withdrawing it with a pair of forceps, it proved to be a piece of a large nail, an inch long; the after treatment consisted merely in keeping the parts clean. An interesting fact in this case is, that for six months, although used for hacking work, the animal had never been noticed to take a lame step.

USE OF PEPSINE.

In several cases when no food would be touched by patients, the administration of pepsine in half ounce doses twice a day has been followed by speedy return of appetite, when other remedies have failed. The greatest objection to its use is that the pure article is very difficult to obtain. In a case of hydro thorax following pleurisy, its effect was wonderful; the patient had eaten nothing for several days. After several doses of pepsine, the appetite returned, and convalescence took place. At the time when it was given the animal was almost in a state of marasmus.

INTUSSUSCEPTION IN A MONKEY.

A large male Arabian monkey (*Cynocephalus hamadryas*) was lately seen at Central Park; he had appeared unwell for a few days, refusing his food; he was lying crouched up in his

cage, seemingly in much pain, and unmindful of the caresses lavished upon him by his female. When taken out of his cage he was unable to stand or sit erect without assistance; marked debility was present, with a very anaemic condition; his countenance was pinched, anxious and pallid; the conjunctival and buccal mucous membranes were of a yellowish tinge, and the breath was very foetid; the action of the heart was very feeble, and the extremities very cold. On percussion over the thoracic walls nothing abnormal was detected; manipulation over the region of the liver seemed to give rise to pain. A diagnosis was made of tuberculosis of the liver, and a grave prognosis was given; brandy and milk was ordered every hour, together with warmth and careful nursing. He died the same night, and was brought here for examination. On post-mortem the cause of death was found to be an intussusception of the small intestines. The strangulated parts were intensely congested, but gangrene had not set in. Tubercular deposits were found extensively in the spleen and liver—somewhat in the lungs, and a few tubercles were scattered throughout the mesentery.

CORRESPONDENCE.

"EPIZOOTIC CELLULITIS, OR PINK-EYE."

Editor Review :—In the November issue of the REVIEW appeared an article under the above title from my friend, J. C. Myers, of Cincinnati, Ohio. To the same number I contributed a short paper on "Epizootic Influenza in the West." If I may judge from the history of the disease, in its spread from the original focus of the present outbreak, and the symptoms as delineated by Dr. Myers, I cannot doubt but that we both have had the same disease to deal with. But is it "Epizootic Influenza," as the profession understands the complaint so termed, or is it "Epizootic Cellulitis?" Evidently it is not proper to use either term indiscriminately in designating a disease. If there is such a disorder as "Epizootic Cellulitis," it must necessarily differ from "Epizootic Influenza." If the outbreak now affecting our

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horses is "Cellulitis," I have been woefully mistaken in calling it "Influenza." If I have committed so grave an error I am anxious to learn why it happened, in that I may guard against a repetition in the future. I have no doubt but that Dr. Myers entertains the same sentiments in regard to the matter.

Of course I cannot charge Dr. M. with introducing so objectionable a term as "Pink-eye," but I think it a fault to head an article for publication with borrowed nomenclature that means nothing. We *might* have "Epizootic Cellulitis," but certainly not "Pink-eyes." True, it is very common to hear English and Scotch veterinarians use the term, but surely there is no need to borrow their shortcomings. The use of the term during the past few months has served to mislead the public as to the importance of the disease, and given occasion for the indiscriminate dosing of the afflicted animals to an extent probably never equalled in the country, for it was said to be a *new* disease, of which the veterinary surgeons knew nothing, and consequently everybody felt at liberty to try everything in the shape of medicine that might be recommended, or that might suggest itself to the self-appointed surgeons in attendance.

I have no doubt Dr. M. was led to write of the disease as epizootic cellulitis from reading Professor Williams' account of what the Scotch call "Pink-eye," and which the Professor named as above.*

The description which the author gives of the disease would apply to many of the cases which I have seen here, yet I am far from certain that I have had to deal with epizootic cellulitis.

In the short account of the disease I sent to the November number of the REVIEW, so certain was I that influenza was the complaint of which I was writing, that it never occurred to me as at all necessary to enumerate the symptoms, and so I contented myself with calling attention to the characteristics of the outbreak.

In my correspondence with army veterinary surgeons, and also with those of St. Louis and New York, no other term

*See Principles and Practice of Veterinary Medicine, page 299.

than influenza was even suggested, so that, if in error, I am not alone.

But let us describe a typical case of this disease, whatever it may be, and leave the diagnosis to the reader.

Yesterday morning a horse belonging to Troop "G," Seventh Cavalry, took his exercise as usual, and seemed in the best of health. Toward evening he was seen to be dull, languid, standing with head lowered, ears drooping somewhat, and resting, first on one leg, then another. Only a part of his supper was eaten. This morning I examined him, and find the following symptoms presented: Temperature 106; pulse 80, very soft, and so weak as scarcely to be counted at the jaw; respiration 20 per minute; mucus membrane of the nose slightly injected, and dry on the surface; that of the eyes greatly swollen, deep pink in color, and covered with patches of loosely-adherent coagulated mucus. The cornea is injected, particularly along the inferior border, and the pupil is contracted. Tears are constantly dripping over the cheeks, and the eyelids are kept closed. The hair feels rough, and the legs are swollen. This swelling is oedematous, and affects most seriously the hind legs, which are warmer than is natural around the fetlocks, and slightly sensitive to pressure. The fore legs are but slightly swollen, as is also the sheath. The gait is precisely that seen in severe cases of influenza—weak and wabbling. The appetite is limited to hay alone; slight constipation. Is this *influenza* or *cellulitis*? True, all cases are not just like that above described, but they are simply modifications, and differ only in presenting various local complications, as may be seen in any epizooty of influenza. I deny that we are justified in calling the disease cellulitis, because a majority of the cases show unusual swelling of the limbs. The disease does not begin as cellulitis, nor is the cellulitis anything more than a local manifestation, depending *principally*, if not entirely, upon the debility of the circulatory system. It is worthy of notice that in those few cases where the mucus membranes of the nasal cavities and trachea are affected the heart-beat remains comparatively strong, and in no instance have I seen more than slight accompanying oedema of the extremities *without a symptom of cellulitis*.

If this disease is cellulitis, how comes it that we have *all* the unmistakable phenomena of influenza during the outbreak? Are we to infer that influenza is a *complication* of cellulitis? Shall we call the *tail* the dog, or shall we be reasonable and acknowledge that the dog is still the dog, notwithstanding his tail attracts the most attention by reason of its swollen condition? I by no means object to recognizing the complications of influenza, whatever they may be, and, if you please, I will say, as the Germans have done, that one of these complications is erysipelatous phlegmonosum (cellulitis), and that in the present outbreak it is the one most prevalent; but I will not consent to calling the disease by this name, unless it can be shown that I am in error regarding what constitutes epizootic influenza.

Respectfully,

A. A. HOLCOMBE.

OPERATION FOR CARTILAGINOUS QUITTOR.

BOSTON, December 5, 1881.

Editor American Veterinary Review:

GENTLEMEN:—In the November number of the REVIEW, at page 373, there is an interesting description given of the removal of the cartilage to cure quittor.

With your permission, I will state a little of my experience in treating this disease, and at the same time make some remarks on the case referred to.

We are informed that "the horse had, for over six months, a cartilagincus quittor;" he was then operated on, and "resumed his work in thirty-five days," making the duration of the disease seven or eight months.

Although I have treated a great many cases by burning out the sinuses with the red hot rod, by caustic applications and blisters, by forcibly removing the wall and sole from the affected quarter, and otherwise, *I have never succeeded in hastening their recovery in much short of six or eight months from the first opening of the sinus; neither have I ever seen a case where the discharge did not stop in that time under simple treatment.* I have

therefore discarded all painful treatment, and now rely wholly on poulticing, reducing the hoof so as to relieve the crowded vessels underneath, every third or fourth week, or oftener, and by turning into a low, soft pasture, when possible. Sometimes, when the hoof is not greatly shrunk, heavy horses can be kept at slow work a good deal of the time without much suffering, but the least painful and most humane treatment has invariably given me the best results. It may be objected that few owners would wait so long. I have not found this the case when advised to put their animals where they will be at the least expense.

Never having removed the cartilage as described, and having only seen this case reported, I hope the operation may prove as successful on a quittor just forming as in one "over six months" old. Unless this is proved, it is only another of the ingenious tortures to which the profession so often subjects its poor patients.

If this operation will cure a quittor a week or a month old in thirty-five days after it is performed, the thanks of the profession are certainly due Professor Liautard for bringing it to their notice. If, however, it will not shorten the duration of the disease, the sooner it is known the better. Hoping you will pardon me for troubling you with this rather long letter, and that we may get the reports of a few more such cases, I remain

Yours, very respectfully,
WILLIAMSON BRYDEN.

SOCIETY MEETINGS.

MONTREAL VETERINARY MEDICAL ASSOCIATION.

FORTNIGHTLY MEETING.

The regular fortnightly meeting of this Association was held on Thursday evening last, Dr. Jas. Bell, President, in the chair. Mr. E. Crundall was balloted for and elected a member of the Association. After further general business, Mr. D. E. Campbell described a case of opacity of the cornea of two years standing, which he had treated by the application of calomel, followed

ly wholly on crowded vessels and by turns, when the kept at slow ring, but the only given me would wait advised to put and having may prove as six months" the ingenious its poor month old in the profession their notice. disease, the don me for we may get ,
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on was held in the chair. member of the D. E. Camp years stand- nel, followed by a 5 grain solution of argentine nitrate and had a good recovery. Dr. William McEachran read a paper on the subject of tetanus. He described very fully and graphically the history, causes, symptoms and treatment of the fearful malady. He spoke of the fatal character of the disease, and said that nothing makes us feel our helplessness in combating disease, and at the same time the terrible nature of disease, than to witness a noble horse die of tetanus. The agony which is depicted in every feature of the poor dumb creature pleads strongly for our help, but such help as we can give can only at most alleviate the suffering except in rare cases. In speaking of the treatment, he stated that in this city during the past summer the majority of cases were due to injuries from picking up nails in the street, the result of throwing ashes containing them on the streets. He recommended when a horse picked up a nail, that, the nail being extracted, the foot should be pared down and the soft parts exposed, so as to prevent any irritant remaining in the wound; following this, the wound should be poulticed and some sedative applied to allay irritation and pain. Owing to the high nervous excitement present, absolute rest and perfect quiet are essential. In speaking of the internal treatment, Dr. McEachran stated that there was no remedy known which could be said to cure the disease, though the whole pharmacopœia had been ransacked and tried in vain. The indications, however, were always to relax the spasms and allay the extreme pain which the animal suffered. The essayist had tried various remedies to effect this purpose, and was satisfied that belladonna, in the form of the solid extract gave the best results. Hypodermic injections he had found to cause such violent spasms that he had ceased to use them. He concluded by describing some of the cases which had come under his observation during the past twelve months, one of which was in the practice of the College, and had recovered. The sedative which had been used in this case was belladonna; and another case in the practice of Mr. Wm. Jakeman, V.S., Halifax, had also recovered under the use of belladonna alternated with chloral hydrate. In the discussion which followed, Principal McEachran and Mr. C. J. Alloway, V.S., both related interesting

cases which had recovered in their hands. Mr. Alloway advocated hydrocyanic acid as the sedative and anti-spasmodic. The President, Dr. Bell, said that, as a medical practitioner, he was astonished to hear the large percentage of recoveries which had been stated. In his experience in human practice, in the General Hospital, he had seen only two cases of recovery, both of which were chronic tetanus. He considered that, theoretically, opium was the best anti-spasmodic and sedative which could be used, as it did not, as many others, depress the heart's action. He had never given it a fair trial. There was a great deal, he thought with the essayist, to be learned yet concerning the pathology and etiology of the disease.

A vote of thanks was passed to the readers of the papers, after which some pathological specimens were exhibited by Mr. A. W. Clement, and the meeting adjourned till December 8th, when Mr. Paul Paquin will communicate a case and Mr. Fred. Torrance will read a paper.—*The Gazette*, (Montreal.)

THE UNITED STATES VETERINARY MEDICAL ASSOCIATION PRIZES.

In accordance with the resolution adopted by this Association on the 21st of September, 1875, two prizes, one of fifty dollars (\$50), and one of twenty-five dollars (\$25), are offered for the best and second-best paper which shall be presented to the Association on subjects pertaining to veterinary medicine. By virtue of a subsequent resolution it is required that all competing papers shall be presented to the Secretary on or before the 15th day of July, when they will be forwarded to the Prize Committee for action and report. The Committee will report at the September meeting of the Association, where the successful papers will be read. The author of a paper will not declare his identity to the Committee, but will forward his article unsigned (unless with pseudonym) accompanied by a sealed envelope containing his name and address, subscribed with the title of his paper.

The Prize Committee earnestly invites competition for these prizes, believing that their award should prove a stimulus to the interests of the Association and profession.

A. S. HOLCOMBE, D.V.S., Chairman.

OFFICERS AND COMMITTEES OF THE UNITED STATES VETERINARY MEDICAL ASSOCIATION.

The following are the officers and committees of the United States Veterinary Medical Association :

President, W. Bryden ; Vice-President, L. McLean ; Secretary, C. B. Michener ; Treasurer, Charles Burden.

Board of Censors: Drs. A. Liautard, A. Lockhart, C. P. Lyman, J. S. Saunders, J. Robertson and C. B. Michener.

Committees : Library—C. H. Peabody, J. C. Fogg. Finance—C. H. Hall, John Saunders, A. A. Holcombe. Prize—A. Lockhart, J. C. Meyers, Jr. Intelligence—C. B. Michener, J. Winchester, W. J. Coates. Diseases—A. Liautard, C. P. Lyman, B. McInnes.

ARMY INTELLIGENCE.

“SPECIAL ORDER, No. 283:

“HEADQUARTERS OF THE
“ARMY ADJUTANT GENERAL’S OFFICE,
“Washington, D. C., Dec. 15, 1881.”

“Par. 4. By direction of the Secretary of War, Veterinary Surgeon Cecil R. Leverett, 7th Cavalry, is discharged the service of the United States, to take effect December 31st, 1881.”

REVIEW.

CONTAGIOUS DISEASES OF DOMESTICATED ANIMALS.—No. 34.

We have just received Special Report No. 34 of the Department of Agriculture, on “Contagious Diseases of Domesticated Animals,” and it is with pleasure we make our acknowledgments

for the same. The Honorable Commissioner of Agriculture deserves the hearty thanks of the profession for instituting such investigations, as well as for the careful manner in which they have been carried out. The latter is no doubt the result of the wisdom displayed by the Department in the selection of investigators.

Drs. Law, Salmon, Detmers, McLean and Lyman are men of recognized ability, and their contributions always command a careful perusal and consideration.

Besides this, the diseases treated of—*i. e.*, swine plague “chicken cholera,” contagious pleuro-pneumonia, anthrax and Texas cattle disease—are those that most interest the veterinarian and agriculturist at the present time. The action, which it is hoped the National Government will take, in dealing with these plagues will be largely influenced by such reports as the one before us. It would infringe too much on our space to give a lengthy opinion, as we would like, of the labors of these different investigators, and we must content ourselves with merely noting the prominent features of their report.

These investigations began about four years ago, and it is certainly very gratifying to know that since the preventive measures advised have been observed there has been a rapid decrease both in the number of animals attacked and in the virulence of the diseases.

Dr. Salmon gives some interesting results concerning the power of the contagia of swine plague in resisting certain anti-septic agents. He finds that chloride of zinc, salicylic acid, carbolic acid, iodine, sulphate of quinine and a few other agents in sufficiently strong solutions are destructive to the pathogenic organisms. Heat above 150° and putrefaction are also destructive.

The opinions entertained by Drs. Detmers and Salmon concerning the true nature, origin and development of the disease-germs are somewhat at variance, and it will doubtless require repeated experiments to definitely settle this point. As Pasteur has shown with anthrax, so the experiments of these gentlemen prove that the swine plague is less fatal when produced by inocu-

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lation. Prof. Law, to whom this part of the investigation was specially entrusted, finds that the properly cultivated germ not only militates against the virulence of the disease, but also, that it insures immunity from subsequent attacks. Immense saving will accrue, then, when these "cultivations" are properly made and inoculation practiced.

Dr. Detmers places a higher value on carbolic acid as a prophylactic remedy than any other used by him. The value of these investigations is principally to be measured, however, by the knowledge obtained of the character, origin, development, etc., of the disease-germ, and, further, of the power of inoculation to render the system unsusceptible to future attacks of the disease.

Dr. Lyman's report on contagious pleuro-pneumonia has already been referred to in these columns, and it only remains now for us to state that the results of his labors prove that too much care can not be exercised in ante and post mortem examinations of cattle suffering from diseases of the respiratory organs. Especially is this true where such vast interests as our cattle exports are involved.

The so-called "chicken-cholera" has received a most thorough study at the hands of Dr. Salmon, and it would seem that our extensive losses heretofore have been largely due to a lack of knowledge on the subject. He concludes that the virus of the malady must be considered as a *fixed* one—and thus the danger of contagion by the atmosphere is reduced to the minimum. Dilute sulphuric acid is probably the best disinfectant and antiseptic to use about the coops, on the droppings, &c.

"Etiology of Charbon" is a resumé of the opinions of some celebrated French veterinarians, and the opinions here expressed are the most recent and trustworthy information we possess on the subject.

The reports of L. McLean of supposed cases of contagious pleuro-pneumonia, epizootic aphtha and anthrax, are clear and concise, and show a thorough knowledge of the subjects treated upon. We fully agree with him in his opinion that as yet neither contagious pleuro-pneumonia nor foot-and-mouth disease have invaded our western States.

The report closes with "Extracts from Letters of Correspondents," giving the condition of live stock in all the different States.

Altogether this report is one of the most valuable ever issued by the Agricultural Department.

NEWS AND SUNDRIES.

RINDERPEST is reported in lower Austria. Three thousand and eighty-eight animals have thus far been lost by the pest.—*The Home Farm, Dec. 1881.*

FOOT AND MOUTH DISEASE is reported to be increasing in Cornwall, and has again broken out in South Hampshire.

THE NATIONAL BOARD OF HEALTH has expended since April 1st, 1879, to June 30th, 1881, a total of \$440,898. For a like amount the veterinary profession could show good results.

A DOG which had been accidentally confined at Metz fasted thirty-nine days before he was released, and recovered.—*A. m. Cultivator.*

PINK-EYE.—More than 1,000 horses are suffering from "pink-eye" at Pittsburg, Pa. Several animals have died. Business is suffering in consequence of the prevalence of the disease, for which no adequate remedy has yet been discovered.—*The Prairie Farmer.*

A NOVEL CURE FOR SHYING.—In the town of Zwickau, in Saxony, a mare wearing spectacles has excited considerable attention. The animal is very short-sighted, and shies at the ground. A clever optician, hearing of this, constructed a pair of spectacles, and the animal is now completely cured of this fault.—*The Cultivator and Country Gent.*

WONDERFUL INTELLIGENCE.—The danger often attending the bite of a seemingly innocuous animal is forcibly shown in a case recently reported in California. A man was bitten by a rabbit, and nearly died in consequence. His physician, hardly believing that all the trouble proceeded from the bite, which was the

merest scratch, carefully examined the upper jaws of several rabbits, and found in each a hollow tooth containing a fluid so deadly that two drops of it, administered hypodermically, caused the death of a lamb within an hour.—*Am. Cultivator*.

SHEEP AND CATTLE RAISING IN CUBA.—An extraordinary amount of capital is being invested in sheep and cattle raising in Cuba. Including the horses and mules owned by the planters, it is calculated that the value of the cattle of all sorts in the Trinidad Valley amounts to \$2,000,000. Great care is being bestowed upon the breeding, and the importation of sheep, cows and bulls is increasing largely, no less than 1,000 head having been delivered at Cienfuegos alone in a single week.—*Am. Cultivator*, Dec. 17th.

FRANCO-AMERICAN COMMERCIAL RELATIONS.—M. Rouvier, Minister of Commerce at Paris, on December 5th, received the French committee for furthering a Franco-American treaty of commerce. He declared his willingness to withdraw M. Tirard's decree concerning American pork, if the Americans would institute a trustworthy system of inspection. In reference to the subject of the appointment of commissioners to negotiate the basis of a treaty of commerce, he said that he recognized that as soon as the treaties now under discussion were concluded the French Chambers ought to respond to the action of the American Congress by taking the initiative in the appointment of commissioners.—*N. Y. Sun*.

THE MORTALITY among the calves taken west this season is terrible, caused mainly by exposure, change of climate, food, etc., and by a disease known as lung worm, the lungs of the affected calves being full of worms of a thread-like character. Mr. J. Swaim, of Shenandoah, Iowa, reports that out of 947 head taken to his neighborhood, over 400 have died. The Treasury Cattle Commission has ordered this outbreak to be investigated by Dr. Farrington, who is now in the west in the employ of the Commission.—*The Breeder's Gazette*.

DR. LYMAN'S INVESTIGATION.—A Washington dispatch says that Dr. Charles P. Lyman, the veterinary surgeon sent by the

Department of Agriculture to Great Britain to investigate the grounds upon which the British Government based its regulations as regards the importation of American cattle, has submitted a report, from which the following brief extract is given: "As a result of my conference wrth the authorities of Great Britain upon the subject, it may be safely said that the impressions which they held regarding the health in this respect of our western herds have been materially changed, and that lungs having a certain appearance, heretofore considered as being that of pleuro-pneumonia, will not be so considered in the future."—*Cultivator and Country Gentleman.*

CRIBBING CURED BY ELECTRICITY.—An invention to prevent horses from cribbing has recently been tried in Paris. Mr. A. Angstrom has constructed an apparatus by which an electrical stream is led to the mouth of the horse as soon as it touches the manger. The horse which thus receives a shock will soon be cured of the bad habit of crib biting. The edge of the crib is for this purpose connected with two copper bands, which are separated from each other by a plate of caoutchouc, to which they are fastened. Each band communicates with the pole of an electrical battery, so that as soon as the horse bites the crib he touches one of the copper bands, uniting a spring which connects the electrical chain, and the shock is given.—*Turf, Field and Farm.*

EXCHANGES, ETC., RECEIVED.

FOREIGN.—*Revue fur Thierheilkunde Thieozucht, Archives Veterinaires, Recueil de Medecine Veterinaire, La Presse Veterinaire, La Clinica Veterinaria, Veterinary Journal, Veterinarian, Gazette Medicale, Annales de Belgique, &c.*

HOME.—*Medical Record, Bulletin of the National Board of Health, Turf, Field and Farm, Country Gentleman, American Agriculturist, American Cultivator, The Indue Medicus, Breeder's Gazette, National Live Stock Journal, Medical and Surgical Reporter.*

JOURNALS.—*Illustrated Journal of Agriculture, Iowa Farmer, Home and Farm, Forest and Stream, Rod and Gun, American Specialist, American Farmer, Western Rural, Medical Herald, Cleveland Leader.*

REPORTS.—*Trichinae and Trichinosis, Report of the Commissioner of Agriculture for the year 1881.*

CORRESPONDENCE.—W. Bryder, A. A. Holcombe, Ed. McNicol, Tho. C. Crowley, Robert H. Harrison, W. A. Thomas.